

have occurred on August 2 to 6, 1877. However, the pelvis having been found so contracted that the passage of a child at the normal end of pregnancy would be exceedingly doubtful, Prof. Späth consented to an attempt at induction of labour by means of pilocarpin. On May 3d, at 3.23 P. M., the contents of a Pravaz syringe full of a 2 per cent. solution of the muriate of pilocarpin were hypodermically injected in the left thigh. The first results observed at the end of 4 minutes were dilatation of the pupils (which had been contracted), disposition to vomit, sweating of the face, and a flow of saliva, which were soon followed by a sweetish taste in the mouth and trembling of the lower extremities. The secretion of sweat then rapidly appeared over the whole body, increasing at the same time on the face. At the end of a quarter of an hour the sweating had reached its maximum, and then became quickly arrested, chilliness as if from evaporation replacing also the former sense of heat. The salivation, which had kept pace with the sweating in intensity, also ceased almost suddenly, although a relapse lasting for 2 minutes occurred 26 minutes after the injection had been effected. During the whole time the thermometer in the axilla remained unchanged (36.8° Celsius), the pulse rising from 68 to between 92 and 100, and the respirations increasing from 24 to 40. All these phenomena then abated, so that by 5 o'clock the patient's state had become quite normal, or, as she expressed it, she felt just as she did in the morning. When seen at 6.15 she stated that she had since felt painful contractions in the abdomen. Her temperature was the same, the pulse being 72, and the respirations 32. An examination was made, and the cervix, which had been firmly closed, was found to be looser, its canal admitting the finger to the extent of 3 centimetres; and the head was plainly felt through the membranes. She had some hours' interrupted sleep, but perceived no pains. Examined again at 10 o'clock: the canal of the cervix was found more dilated and only 2 centimetres in length, the membranes being distended. Besides the mucus on the finger, some blood was observed. At 10.7 another injection of pilocarpin was made on the left forearm, and in two minutes afterwards sweating of the face appeared; and the phenomena succeeded each other exactly as they did after the first injection, even to the occurrence of the relapse of the salivation at the end of 25 minutes. Shortly after 11 o'clock the patient fell asleep, and awoke at 5 in the morning, complaining of pains in the abdomen and a sense of pressure downwards. By 5.45 the pains had set in regularly, and (without going further into details) the labour was terminated at 8.25 by the birth of a living female infant. The placenta was discharged spontaneously at the end of 20 minutes, and the uterus contracted well. At the date of the report (May 9th) both mother and child were doing well.

The child weighed 2275 grammes and measured 47 centimetres. That its birth exhibited the power of the pilocarpin is shown by the fact that the mother during several days she had been under observation had not felt the slightest pain, the cervix also remaining prior to the injection completely closed; while after the administration of this the action became rapid and energetic. Dr. Schauta believes that this case and those reported by Dr. Massmann at all events show decidedly the desirableness of additional trials of pilocarpin being made with respect to feeble pains, abortion, etc.—*Med. Times and Gaz.*, July 13, 1878.

The Revolutions of the Fetal Head in Passing through a Brim contracted only in the Conjugate Diameter.

A laboratory note on this subject was, at a recent meeting of the Obstetrical Society of London (*Med. Times and Gaz.*, June 22, 1878), contributed by Dr. MATTHEWS DUNCAN. The only point considered in the note was movements of the fetal skull in a coronal plane—that is, revolutions around the pubic part

of the pelvic brim and around the promontory of the sacrum—movements resembling right and left lateral flexion, or like revolution in an internal or occipito-frontal axis. From this last kind of movements the revolutionary movements were distinct, because the revolutionary movement on an external axis implied progress of the head as a whole, and not mere movement in itself. Dr. Duncan's conclusions were based chiefly on experiments with fresh mature fetuses and modern pelvic brims, and tallied remarkably with the results of clinical observation of the progress of the head in head-last and in head-first cases in simple narrow pelvis. Recent inquiries into this subject had increased our practical usefulness distinctly, and further elucidation of it was desirable. The experiments were made in imitation of footling cases, and the first result of traction through the spine was a revolution around the pubic part of the brim, the sagittal suture approximating to the pubes. The side of the base of the skull placed posteriorly passed first through the contraction and during the first revolution. The side of the vault of the skull placed anteriorly passed first, and during the second or greater revolution. Litzmann, Kleinwächter, and Spiegelberg described only the first revolution, or rather its analogue in head-first cases. Burner described only the second or greater revolution. Goodell, in singular accordance with the conclusions of this note, described two movements, but not as revolutions; and he made this accurate description of both head-first and head-last cases. The movement of the sagittal suture towards the sacrum (and the base of the fetal skull in nearly an opposite direction), in the first part of the passage in head-last cases, was analogous to the movement of the sagittal suture forwards at the same stage of a head-first case. In both the head was revolving to a slight degree on the pubic part of the brim of the pelvis. The movement of the sagittal suture towards the symphysis (and the base of the fetal skull in nearly an opposite direction), in the second and greater part of the passage in head-last cases, was analogous to the movement of the sagittal suture backwards or towards the hollow of the sacrum at the same stage of a head-first case. In both the head was making its greater revolution on the promontory of the sacrum.

The Etiology of Face Presentations.

In a paper published in the *Archiv für Gynäkologie*, B. xii. H. 2, Dr. MAYR maintains a view similar to that of Hecker on the influence of the primary shape of the skull in the production of face presentations, and supports it by statistics derived from the Lying-in Hospital at Munich. In 14,519 deliveries there were 107 face presentations, or 0.73 per cent., and 15 brow presentations, or 0.103 per cent. The number of first positions of the face to second positions was in the ratio 1.4 to 1. Hecker's statistics give a ratio of 1.3 to 1, and therefore taking the normal ratio of first to second positions of the vertex as being 2.3 to 1, it is proved that a face presentation arises more easily when the back of the child lies to the right. The mean direction of the first stage of labour in 38 primiparae was 23.6 hours; that in 69 multiparae, 14.5 hours. The mean duration in the second stage in the 38 primiparae was 12½ hours; in the 69 multiparae, 1.26 hours. The general duration of labour was therefore considerably greater than in vertex presentations, although it was accelerated artificially in a greater proportion of cases. Version was not employed in any of the 107 cases, but forceps were used seven times, or in 6.5 per cent. of the cases, the general forceps ratio being only 2.5 per cent. Rupture of the perineum occurred in seven cases, but in none of those in which forceps were employed. This gives a proportion of 6.5 per cent. of ruptured perineum, while that in vertex presentations was 4.6 per cent. Of the 107 mothers, 11 suffered from puerperal maladies. Four patients delivered by